

Figure 1:

Human TCR V α -1.5 (V α -8.2) coding sequence

ATGCTCCTGC TGCTCGTCCC AGTGCTCGAG GTGATTTTAA CTCTGGGAGG
AACCAGAGCC CAGTCGGTGA CCCAGCTTGA CAGCCACGTC TCTGTCTCTG
AAGGAACCCC GGTGCTGCTG AGGTGCAACT ACTCATCTTC TTATTCACCA
TCTCTCTTCT GGTATGTGCA ACACCCCAAC AAAGGACTCC AGCTTCTCCT
GAAGTACACA TCAGCGGCCA CCCTGGTTAA AGGCATCAAC GGTTTTGAGG
CTGAATTTAA GAAGAGTGAA ACCTCCTTCC ACCTGACGAA ACCCTCAGCC
CATATGAGCG ACGCGGCTGA GTACTTCTGT GTTGTGAGTC CTTTTTCAGG
AGGAGGTGCT GACGGACTCA CCTTGGCAA AGGGACTCAT CTAATCATCC
AGCCCTATAT CCAGAACCCCT GACCCTGCCG TGTACCAGCT GAGAGACTCT
AAATCCAGTG ACAAGTCTGT CTGCCCTATTC ACCGATTTTG ATTCTCAAAC
AAATGTGTCA CAAAGTAAGG ATTCTGATGT GTATATCACA GACAAAACTG
TGCTAGACAT GAGGTCTATG GACTTCAAGA GCAACAGTGC TGTGGCCTGG
AGCAACAAAT CTGACTTTGC ATGTGCAAAC GCCTTCAACA ACAGCATTAT
TCCAGAAGAC ACCTTCTTCC CCAGCCCAGA AAGTTCCTGT GATGTCAAGC
TGGTCGAGAA AAGCTTTGAA ACAGATACGA ACCTAAACTT TCAAAACCTG
TCAGTGATTG GGTTCGGAAT CCTCCTCCTG AAAGTGGCCG GGTTTAATCT
GCTCATGACG CTGCGGCTGT GGTCCAGCTG A

Figure 2

Human TCR V α -1.5 (V α -8.2) protein sequence

		FR1	
MLLLL	VP	LEV	ITLGGTRAQSVTQLDSHVSVSEGT
	CDR1	FR2	
PVLLRC	NYSS	<u>SLFWYVQH</u>	<u>PNKGLQLLLKYT</u>
	CDR2	FR3	
SAATL	<u>VKGIN</u>	GFEAE	<u>FKKSETSFH</u> LT
	CDR3		KPSAHMSDA
AEYFC	<u>VVSPFSGGG</u>		<u>ADGLT</u>
constant			
FGK	GTH	LIQ	PYIQNP DPAVYQLRDSKSSDKSVCLF
TD	FDSQ	TNVS	QSKDSDVYIT DKTVLDMRSM
DFK	SNSA	VAWS	NKSDFACAN AFNNSIIPED
TF	FP	SESS	CDVKLVEKSFETDNLNFQNL
SV	IG	FRIL	
LL	KV	AGFN	LLMT LRLWSS

Figure 3:

Human TCR V β -2.1 (V β -20.1) coding sequence

ATGCTGCTGC TTCTGCTGCT TCTGGGGCCA GGCTCCGGGC TTGGTGCTGT
CGTCTCTCAA CATCCGAGCT GGGTTATCTG TAAGAGTGGA ACCTCTGTGA
AGATCGAGTG CCGTTCCCTG GACTTTCAGG CCACAACATAT GTTTTGGTAT
CGTCAGTTCC CGAAACAGAG TCTCATGCTG ATGGCAACTT CCAATGAGGG
CTCCAAGGCC ACATACGAGC AAGGCGTCGA GAAGGACAAG TTTCTCATCA
ACCATGCAAG CCTGACCTTG TCCACTCTGA CAGTGACCAG TGCCCATCCT
GAAGACAGCA GCTTCTACAT CTGCAGTGCT AGAGATGGGG GGGAGGGTTC
GGAGACCCAG TACTTCGGGC CAGGCACGCG GCTCCTGGTG CTCGAGGACC
TGAAAAACGT GTTCCACACC GAGGTCGCTG TGTTTGAGCC ATCAGAAGCA
GAGATCTCCC ACACCCAAA GGCCACACTG GTGTGCCCTGG CCACAGGCTT
CTACCCCGAC CACGTGGAGC TGAGCTGGTG GGTGAATGGG AAGGAGGTGC
ACAGTGGGT CAGCACAGAC CCGCAGCCCC TCAAGGAGCA GCCCGCCCTC
AATGACTCCA GATACTGCCT GAGCAGCCGC CTGAGGGTCT CGGCCACCTT
CTGGCAGAAC CCCCAGCAACC ACTTCGCTG TCAAGTCCAG TTCTACGGGC
TCTCGGAGAA TGACGAGTGG ACCCAGGATA GGGCCAAACC TGTCACCCAG
ATCGTCAGCG CCGAGGCCCTG GGGTAGAGCA GACTGTGGCT TCACCTCCGA
GTCTTACCAG CAAGGGGTCC TGCTGCCAC CATCCTCTAT GAGATCTTGC
TAGGGAAGGC CACCTTGAT GCCGTGCTGG TCAGTGCCCT CGTGCTGATG
GCCATGGTCA AGAGAAAGGA TTCCAGAGGC TAG

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 $\frac{5}{6}$

Figure 4

Human TCR V β -2.1 (V β -20.1) protein sequence

FR1

MILLLLLLGPGSGLGAVVSQHPSWVICKSGTTSVKIECR

CDR1

FR2

CDR2

SLDFQATTMFWYRQFPKQSLMLMATSNEGSKATYEQ

FR3

GVEKDKFLINHASLTLTSLTLTVTSAHPEDSSFYICSARD

4/16

CDR3

GGEG

constant

SETQYFGPGTRLLVLEDLKNVFPPEVAVFEPSEAEISHTQ
KATLVCLATGFYPDHVELSWWVNGKEVHSGVSTDQPPL
KEQPALNDSRYCLSSRLRVSAFWQNPRNHRCQVQFY
GLSENDEWTQDRAKPVQTQIVSAEAWGRADCFTSESYQ
QGVLSATILYEILLGKATLYAVLVSALVLMAMVKRKDS

RG

figure 5

Human TCR V α -1.5 (V α -8.2) protein sequence

FR1
MLLLLVPVLEVIFTLGGTRAQSVTQLDSHVSVSEGT

CDR1 FR2
PVLLRCNYSSSYSPSLFWYVQHHPNKGLQLLLKYT

CDR2 FR3
SAATLVKGINGFEAEFFKKSETSFHILTKPSAHMSDA

Va8.2 CDR3 J45
AEYFCVVSPFSGGGADGLTFGKGTH LIQP

constant
YIQNP DPAVYQLRDSKSSDKSVCLF TDFDSQTNVS
QSKDSDVYIT DKTVLDMRSM
DFKSNSAVAWSNKSDFAACAN AFNNSIIPED
TEFPSESSCDVKLVEKSFETDTNLFQNLSVIGFRIL
LL KVAGFNLLMT LRLWSS

figure 6

Human TCR V β -2.1 (V β -20.1) protein sequence

FR1

MILLILLLLGPGSGLGAVVSQHPSWVICKSGTSVKIECR

CDR1

FR2

CDR2

SLDFQATTMFWYRQFPKQSLMLMATSNEGSKATYEQ

FR3

GVEKDKFLINHASLTLSTLTVTSAHPEDSSFYICSARD

CDR3

J2.5

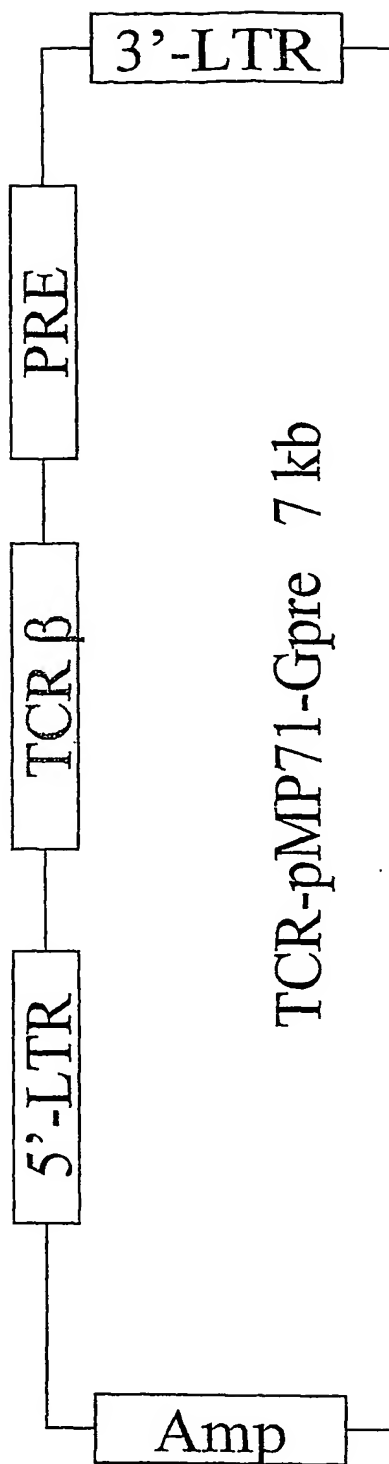
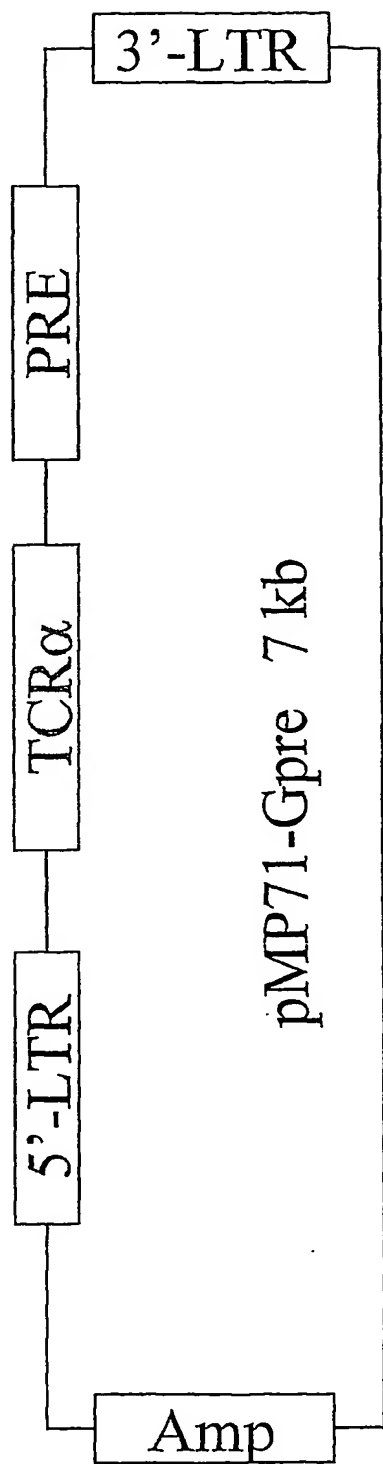
GGEGSETQYFGPGTRLLVL

Constant 2

EDLKNVFPPEVAVFEPSEAEISHTQKATLVCLATGFYPDH
VELSWVWNGKEVHSGVSTDPQPLKEQPALNDSRYCLSS
RLRVSA¹TFWQNP²RNH³ERC⁴VQFYGLSENDEWTQDRAKP
VTQIVSAEA⁵WGRADC⁶GFTSES⁷YQQGVLSATILYEILLGK
ATLYAVLVSALVLMAMVKRKDSRG

Figure 7

TCR-retroviral constructs



7/16

Figure 8

TCR Expression in Human PBMC after transduction

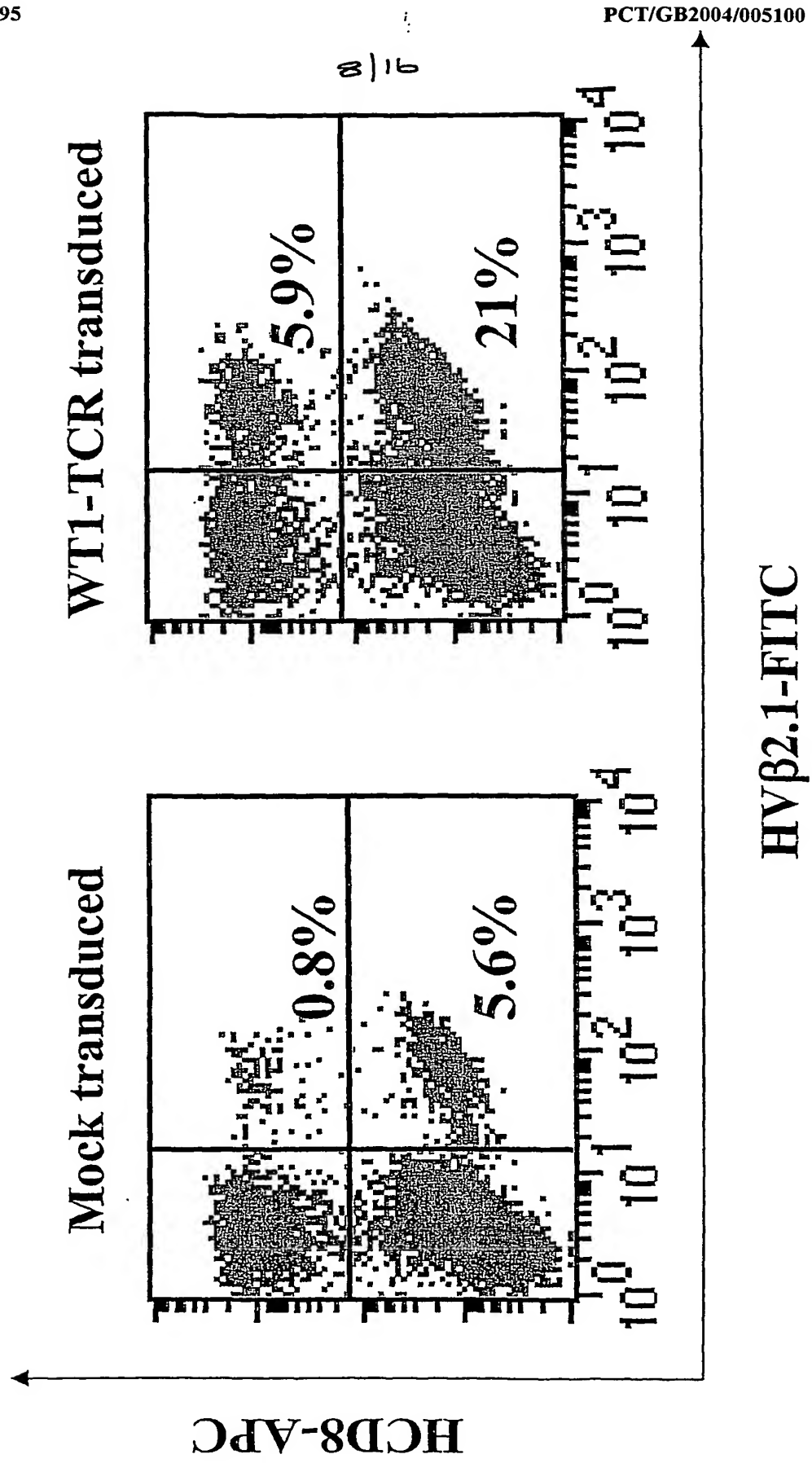
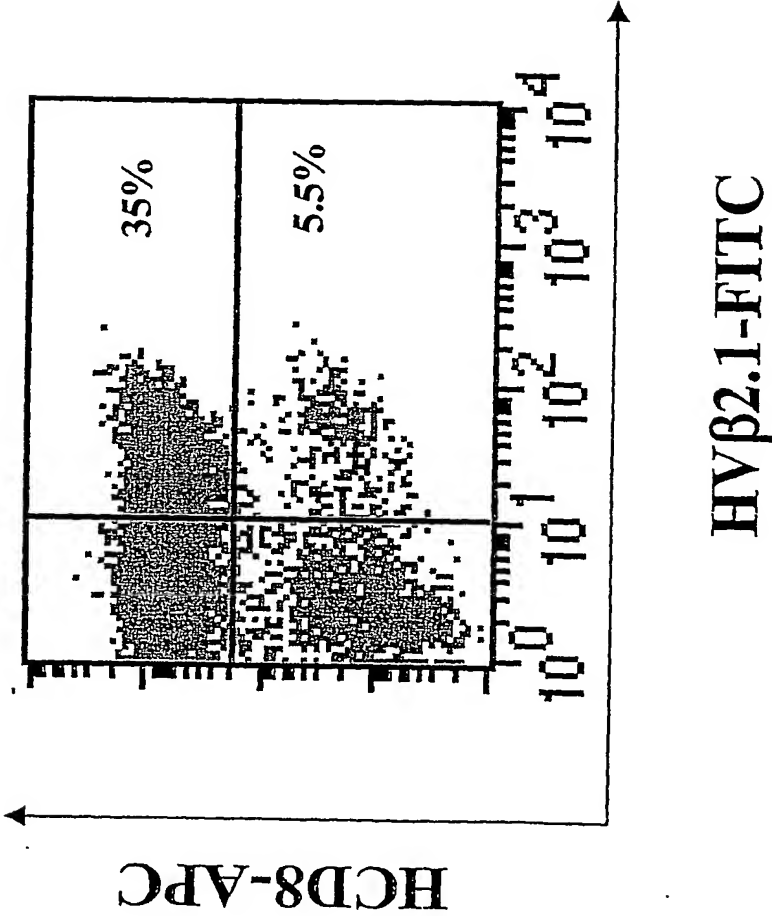


Figure 9

Increase of CD8⁺-Vb2.1⁺ T Cells
after antigen stimulation



9/16

Figure 10

TCR specific for pWT126 transduced PBMC

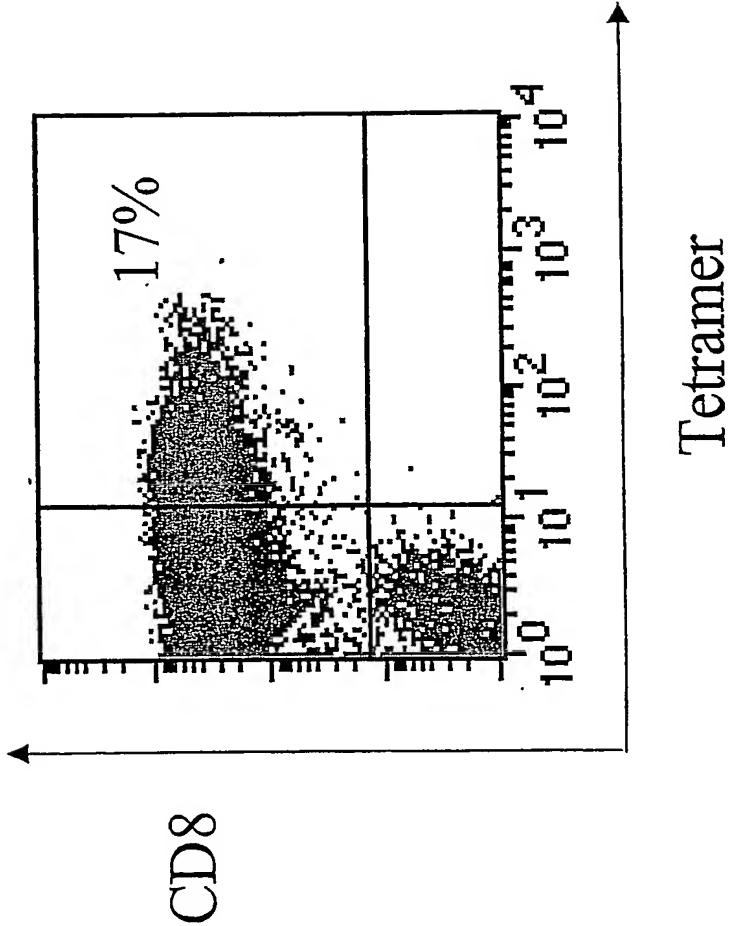


Figure 17

TCR transduced bulk T cells show pWT126-specific killing activity

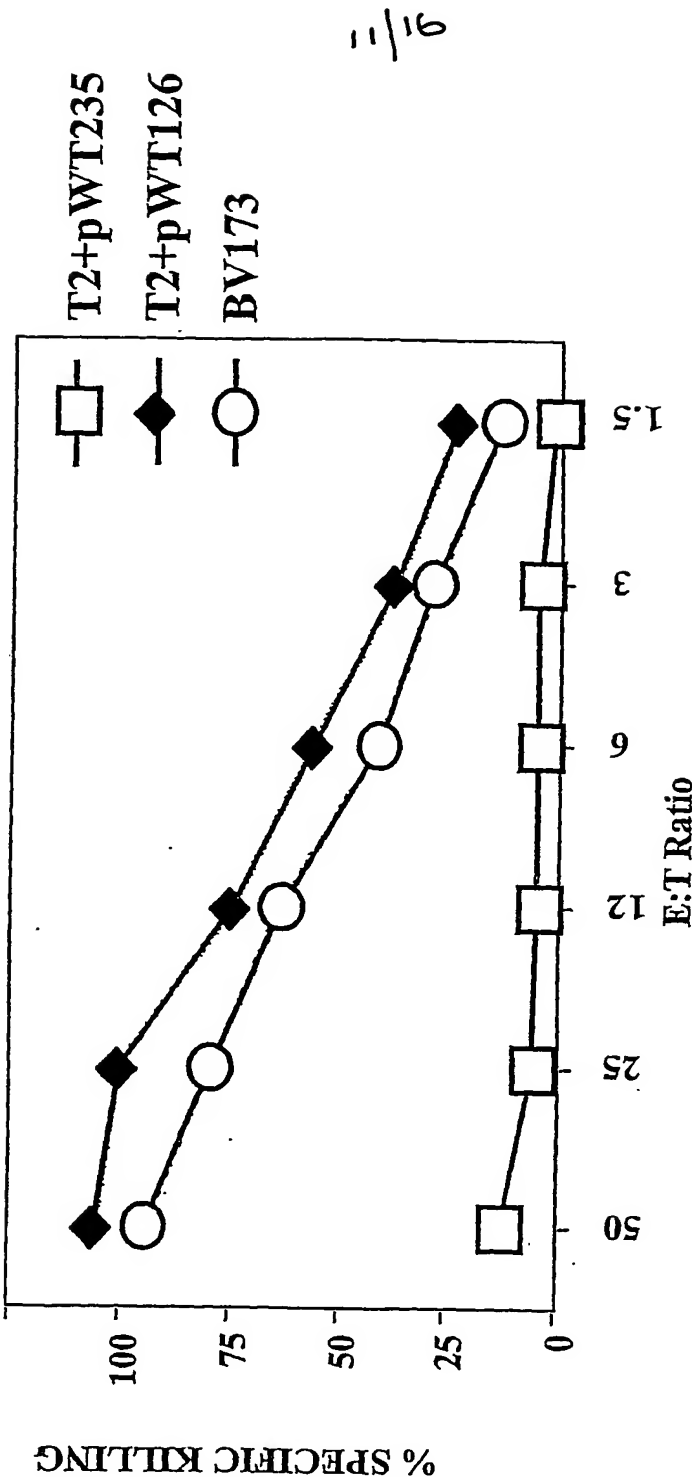


Figure 12

TCR transduced CD8⁺ T cells show pWT126-specific killing activity

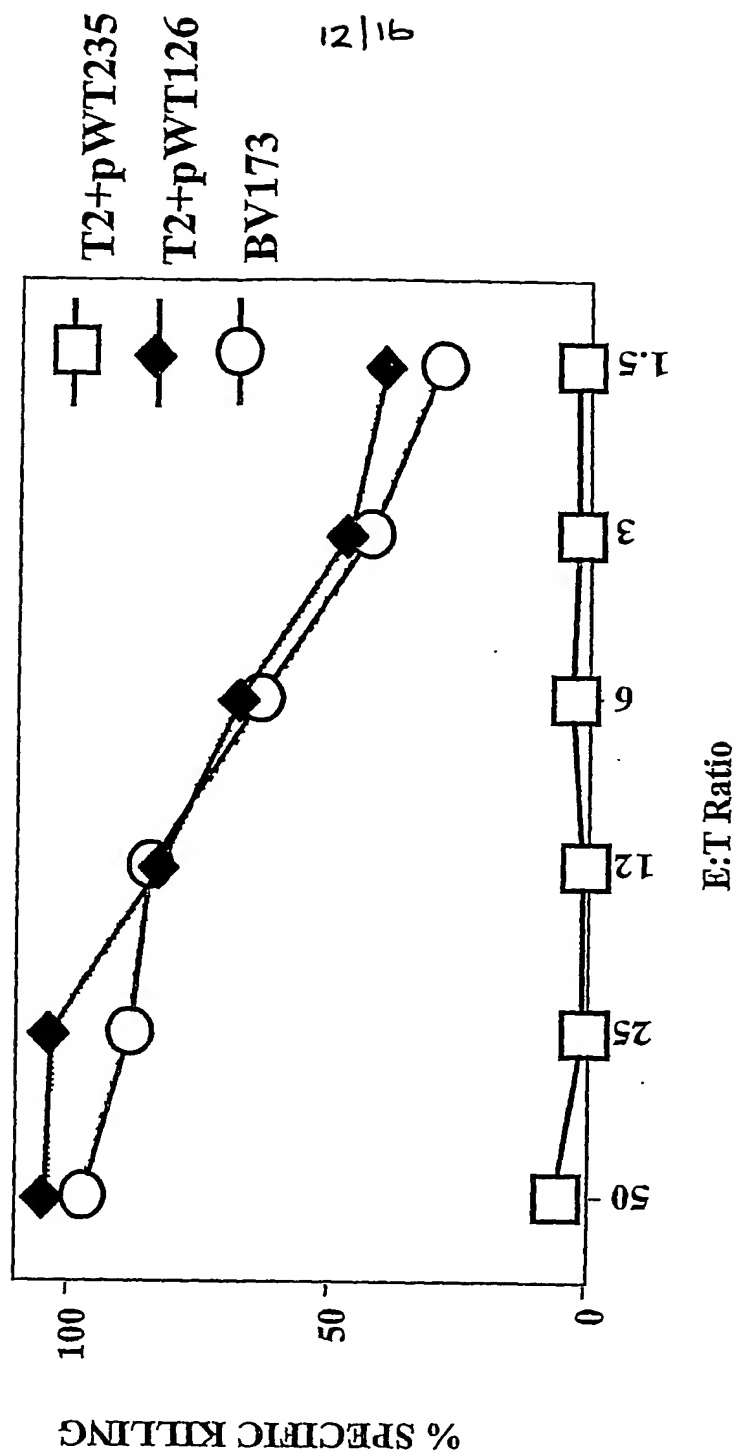
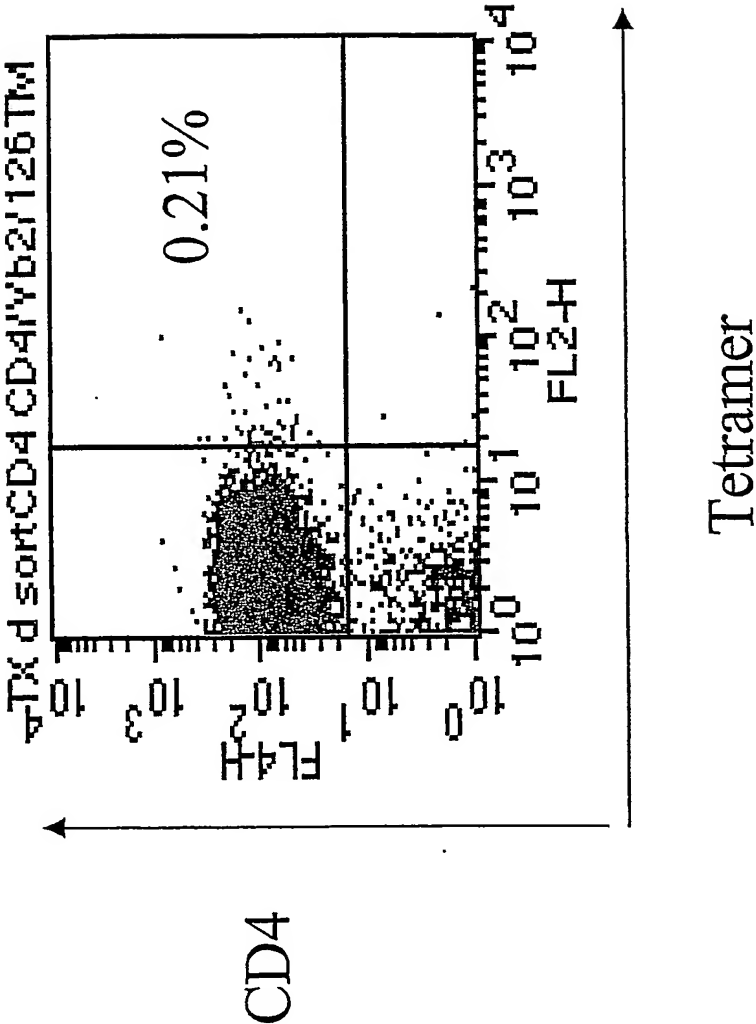


Figure 13

TCR specific for pWT126 transduced
PBMC sorted CD4



13/16

Figure 14

TCR transduced CD4+ T cells show pWT126-specific killing activity

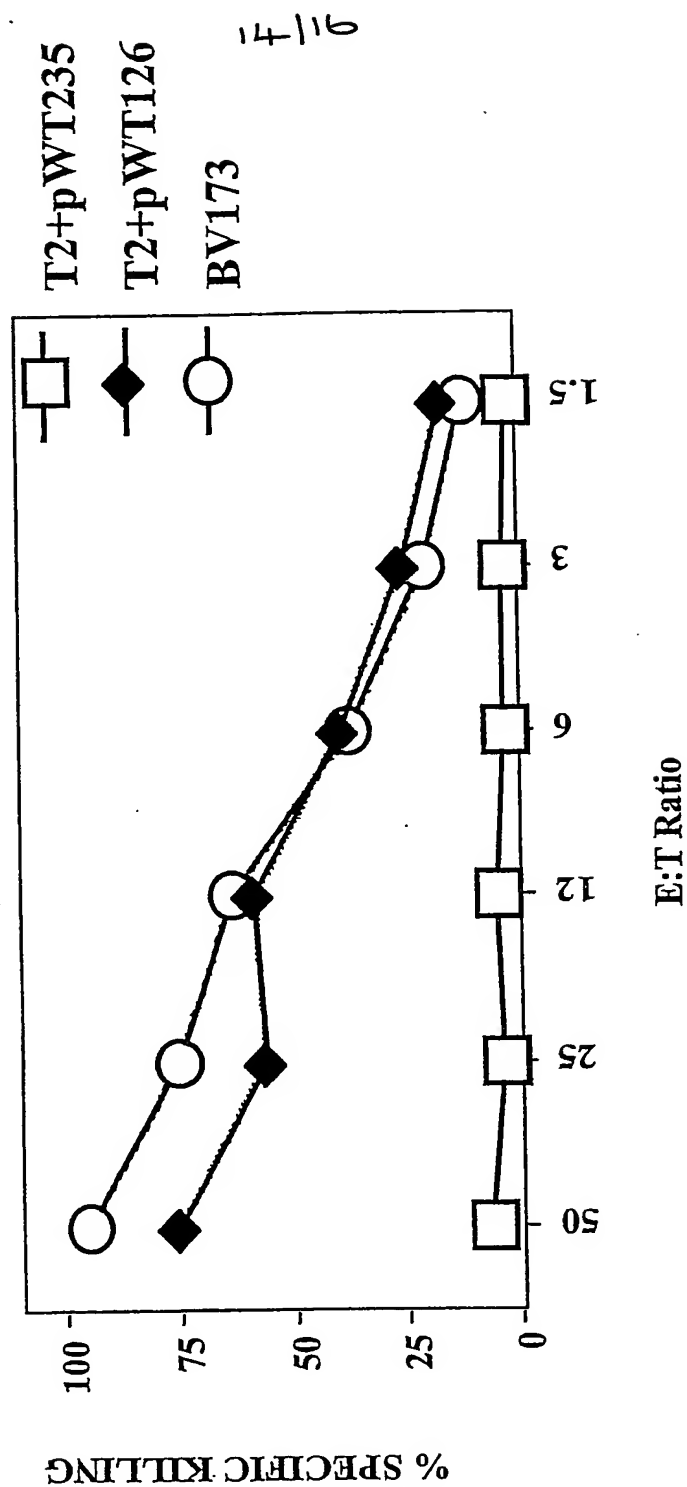
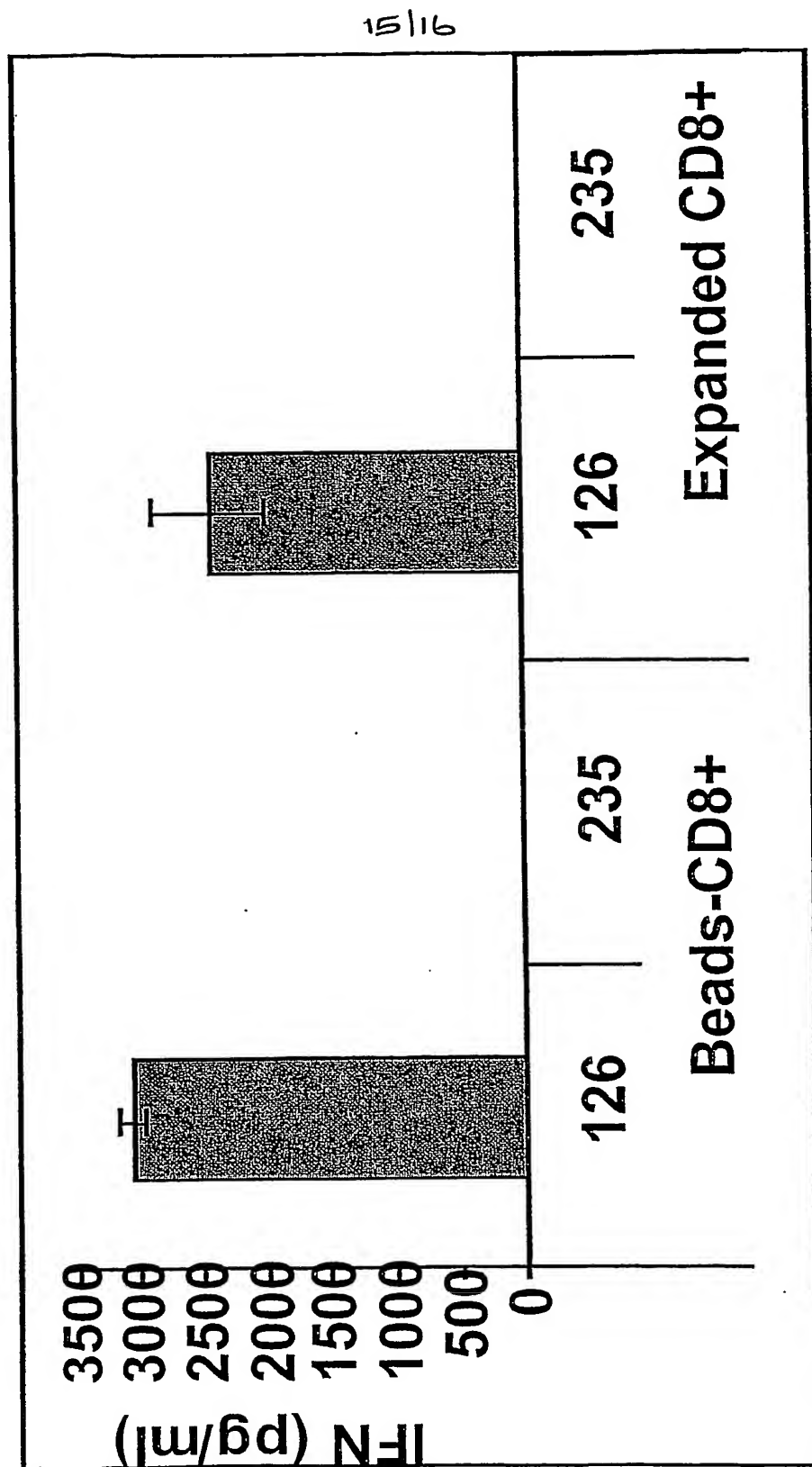


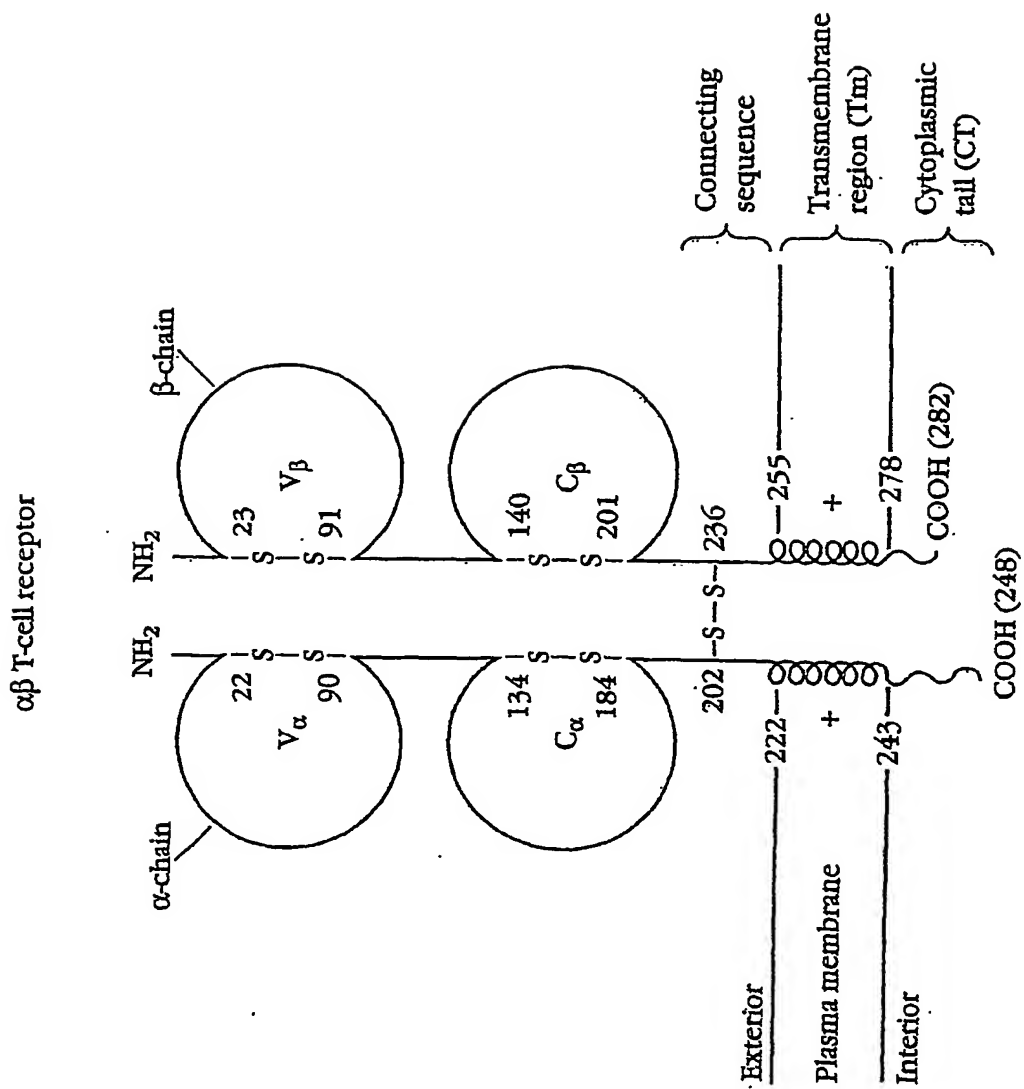
Figure 15

TCR transduced CD8+ T cells show pWT126-specific IFN- γ production



After 20 hrs incubation

16/16
Figure 16



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